

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant

Montelaro et al.

Serial No.

09/785,058

Examiner: Not Yet Assigned

Filed

February 16, 2001

Group Art Unit: 1646

For

"VIRUS DERIVED ANTIMICROBIAL PEPTIDES"

INFORMATION DISCLOSURE STATEMENT

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231

June 29, 2001

Date of Deposit

Alicia A. Russo

Attorney Name

46,192

PTO Registration No.

Signature

Date of Signature

Commissioner for Patents Washington, D.C. 20231

Sir:

Pursuant to the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants respectfully request that the references relating to the above-mentioned application listed herein be made of record in the U.S. Patent and Trademark Office. The referenced citations are listed in the accompanying PTO Form 1449 and copies of the references are enclosed.

- 1. U.S. Patent 5,945,507 to Montelaro et al., issued August 31, 1999.
- 2. File,TM. "Overview of Resistance in the 1990s", *Chest.* 115:3S-8S. March 1999 Supplement
- 3. Friedrich et al., "Salt-Resistant Alpha-Helical Cationic Antimicrobial Peptides", *Antimicrobial Agents and Chemotherapy*, 43: 1542-1548, 1999.
- 4. Hancock. R.E., "Host Defence (Cationic) Peptides: What Is Their Future Clinical Potential?", *Drugs*, <u>57</u>: 469-473, Adis International Limited, 1999.
- 5. Scott et al., "Biological Properties of Structurally Related α-Helical Cationic Antimicrobial Peptides", *Infection & Immunity*, 67: 2005-2009, Apr. 1999.
- 6. Tencza et al., "Lentivirus-derived antimicrobial peptides: increased potency by sequence engineering and dimerization", Journal of Antimicrobial Chemotherapy, 44: 33-41, 1999.
- 7. U.S. Patent 5,714,577 to Montelaro et al., issued February 3, 1998.
- 8. Beary et al., "Interruption of T-cell signal transduction by lentivirus lytic peptides from HIV-1 transmembrane protein", *Journal of Peptide Research*, 51: 75-79, 1998.
- 9. Hwang and Vogel, "Structure-function relationships of antimicrobial peptides", Biochem. Cell Biol., <u>76</u>: 235-246, 1998
- 10. Comardelle et al., "A Synthetic Peptide Corresponding to the Carboxy Terminus of Human Immunodeficiency Virus Type 1 Transmembrane Glycoprotein Induces Alterations in the Ionic Permeability of *Xenopus laevis* Oocytes", *AIDS Research & Human Retroviruses*, 13: No. 17, pp.1525-1532, 1997.
- 11. Ganz and Lehrer, "Antimicrobial peptides of leukocytes", *Current Opinion in Hematology*, 4: 53-58, 1997.
- 12. Tencza et al., "Novel Antimicrobial Peptides Derived from Human Immunodeficiency Virus Type 1 and Other Lentivirus Transmembrane Proteins", *Antimicrobial Agents & Chemotherapy*, 41: 2394-2398, 1997.

- 13. Tencza et al., "Calmodulin-Binding Function of LLP Segments from the HIV Type 1 Transmembrane Protein Is Conserved among Natural Sequence Variants", AIDS Research & Human Retroviruses, 13: No. 3, 263-269, 1997.
- 14. Arroyo et al., "Membrane Permeabilization by Different Regions of the Human Immunodeficiency Virus Type 1 Transmembrane Glycoprotein gp41", *J. Virol.* 69: 4095-4102, 1995.
- 15. Tencza et al., "Effect of Amino Acid Substitutions on Calmodulin Binding and Cytolytic Properties of the LLP-1 Peptide Segment of Human Immunodeficiency Virus Type 1 Transmembrane Protein", *Journal of Virology*, 69: 5199-5202, 1995.
- 16. Yuan et al., "Characterization of the Calmodulin Binding Domain of SIV Transmembrane Glycoprotein by NMR and CD Spectroscopy", *Biochemistry*, 34: 10690-10696, 1995.
- 17. Zanetti, Gennaro and Romeo, "Cathelicidins: a novel protein family with a common propregion and a variable C-terminal antimicrobial domain", *FEBS Letters*, 374:1-5, 1995.
- 18. Merrifield et al., "Design and synthesis of antimicrobial peptides", Antimicrobial Peptides, Ciba Foundation Symposium, 5-6, 1994.
- 19. Moore et al., "Preliminary Experimental Anticancer Activity of Cecropins", *Peptide Research*, 7:265-269, 1994.
- 20. Miller et al., "Identification of a Calmodulin-Binding and Inhibitory Peptide Domain in the HIV-1 Transmembrane Glycoprotein", 1993, AIDS Reseach and Human Retroviruses, 9: 1057-1066.
- 21. Miller et al., "Alterations in Cell Membrane Permeability by the Lentivirus Lytic Peptide (LLP-1) of HIV-1 Transmembrane Protein", *Virology*, 196: 89-1000, Academic Press, Inc. 1993.
- 22. Blondelie et al., "Design of Model Amphipathic Peptides Having Potent Anitmicrobial Activities", *Biochemistry*, 31:12688-12694, 1992.
- 23. Srinivas et al., "Membrane Interactions of Synthetic Peptides Corresponding to Amphopathic Helical Segments of the Human Immunodeficiency Virus Type-1 Envelope Glycoprotein", *Journal of Biological Chemistry*, 267:7121-7127, 1992.

NY02:324561.2 3

- 24. Wild et al., ""A synthetic peptide inhibitor of human immunodeficiency virus replication: Correlation between solution structure and viral inhibition", *Proc. Natl. Acad. Sci. USA*, <u>89</u>: 10537-10541, 1992.
- 25. Fontenot et al., "A Survey of Potential Problems and Quality Control in Peptide Synthesis by the Fluorenylmethoxycarbonyl Procedure", *Peptide Research*, 4:19-25, 1991.
- 26. Miller et al., "A Structural Correlation Between Lentivirus Transmembrane Proteins and Natural Cytolytic Peptides", AIDS Research & Human Retroviruses, 7:511-519, 1991.
- 27. Eisenberg and Wesson, "The Most Hihgly Amphiphilic α-Helics Include Two Amino Acid Segments in Human Immunodeficiency Virus Glycoprotein 41", *Biopolymers*, 29: 171-177, 1990.
- 28. Eisenberg et al., "The hydrophobic moment detects periodicity in protein hydrophocity", *Proc. Natl. Acad. Sci. U.S.A.*, <u>81</u>:140-144, 1984.
- 29. Chou et al., "Prediction of The Secondary Structure of Proteins From Their Amino Acid Sequence", Adv Enz Relat Areas Mol Bio, 47: 45-146, 1978.
- 30. Garnier et al., "Analysis of the Accuracy and Implications of Simple Methods for Predicting the Secondary Structure of Globular Proteins", *J. Mol. Biol.*, 120: 97-120, 1978.

No fee is believed to be required in connection with this communication. However, if a fee is required, the Commissioner is hereby authorized to charge the payment of any fees fees to Deposit Account No. 02-4377. A duplicate sheet of this communication is enclosed.

Respectfully submitted,

Rochelle K. Seide

Patent Office Reg. No. 32,300

Alicia A. Russo

Patent Office Reg. No. 46,192

Attorneys for Applicants (212) 408-2627

Enclosures